

ABSTRACT

A method and system for proving ownership of an IPv6 address of a node in an IP based communication system. The node generates or has a private key corresponding to a public key, computes an address using the public key. The node verifies owning the address by generating answer to at least one question presented by another node, the answer being generated using the private key corresponding to the public key. According to another embodiment, for proving ownership of the IP address, the node generates the IP address based on passwords used only once, and the another node receiving the IP address verifies that the node owns the IP address by checking the password.